

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

KAREL VAN DEN BERG

**APPLICATION BRANCH**

Serial No. (to be assigned)

Filed: Herewith

FOR: A FEED METERING DEVICE

**PRELIMINARY AMENDMENT**

To The Honorable Commissioner  
of Patents and Trademarks  
Washington, D. C. 20231

Sir:

This Preliminary Amendment is for the above-identified Application which is being filed under 35 USC § 111(a). Priority of April 10, 2000 is claimed based on Dutch Patent Application No. 1014895 filed April 10, 2000.

**IN THE SPECIFICATION:**

A Substitute Specification is submitted herewith. It is requested that the Substitute Specification be substituted for the specification submitted herewith of the instant Application. No new matter has been added to the Substitute Specification. A marked-up copy of the original specification of the invention is submitted herewith for comparison purposes.

**IN THE CLAIMS:**

On page 14, immediately following the Heading "CLAIMS", please insert: --Having thus disclosed my invention, what I claim as new

and to be secured by Letters Patent of the United States of America is--.

Please cancel all claims except Claim 1 without prejudice.

Please add the following Claims:

Claim 31. A feed metering device for providing feed in measured portions to an animal which comprises a feed unit for containing said feed, an entrance opening to said feed unit, a feed supplying device for providing feed to said feed unit, and weighing means for weighing the feed in said feed unit, said feed unit being connected to said feed supplying device by angular displacable means which comprise at least in part said weighing means.

Claim 32. A feed metering device in accordance with Claim 31 which further comprises an animal identification device for recognizing a particular animal that proceeds to said feed unit.

Claim 33. A feed metering device in accordance with Claim 32 wherein said animal identification device provides data to said feed supplying device, said feed supplying device supplying an amount of feed to said feed unit based on data from said animal identification device.

Claim 34. A feed metering device in accordance with Claim 33 wherein said weighing means provides data to said feed supplying device, the amount of feed provided from said feed supplying device to said feed unit being based on data both from said animal identification device and said weighing means.

Claim 35. A feed metering device in accordance with Claim 31 wherein said weighing means includes said feed unit which is

pivotal about a hinge pin and a device for determining the degree of angular displacement of said angular displacement means and based on said degree as so determined, the weight of feed present in said feed unit.

Claim 36. A feed metering device in accordance with Claim 35 wherein said device for determining the degree of angular displacement of said angular displacement means is integrated with an animal identification device.

Claim 37. A feed metering device in accordance with Claim 31 wherein said angular displacement means comprises a measuring roll which is in contact with said feed unit.

Claim 38. A feed metering device in accordance with Claim 31 which further comprises a load sensor, said load sensor being operatively connected to said angular displacement means, said feed unit bearing on said load sensor.

Claim 39. A feed metering device in accordance with Claim 38 which comprises an animal identification device, said load sensor being included in said animal identification device.

Claim 40. A feed metering device in accordance with Claim 31 wherein said weighing means comprises a hinge pin, a measuring roll and a load sensor which are located in close proximity to each other.

Claim 41. A feed metering device in accordance with Claim 31 which further comprises a safety supporting bracket for said feed unit.

Claim 42. A feed metering device in accordance with Claim 31

wherein said feed unit is movable, said weighing means comprising said movable feed unit, a motor for moving said feed unit and for measuring the magnitude of torque during movement of said feed unit, said measuring means including means for deducing from the magnitude said torque as so measured the weight of the feed in said feed unit.

Claim 43. A feed metering device in accordance with Claim 31 comprising an animal identification device, data as to the weight of feed in said feed unit being integrated in said animal identification device.

Claim 44. A feed metering device in accordance with Claim 31 wherein said weighing means comprises a motor and a torque roll, said motor moving said feed unit and driving said torque roll, said torque roll being in contact with said feed unit.

Claim 45. A feed metering device in accordance with Claim 31 which comprises animal identification means for identifying an animal to be deterred from appearing at said feed unit and taking feed therefrom, the feed metering device further comprising deterring means for deterring an animal that appears at said feed unit from taking feed therefrom.

Claim 46. A feed metering device in accordance with Claim 45 wherein said deterring means receives data from said animal identification device for deterring selected animals identified by said animal identification device from taking feed from said feed unit.

Claim 47. A feed metering device in accordance with Claim 31

which comprises an animal identification device and deterring means for deterring an animal from taking feed from said feed unit, said deterring means being at least partially integrated with said animal identification device.

Claim 48. A feed metering device in accordance with Claim 47 wherein said deterring means comprises a loudspeaker that produces an animal-frightening sound.

Claim 49. A feed metering device in accordance with Claim 47 wherein said deterring means comprises a lighting device that emits an animal-frightening light.

Claim 50. A feed metering device in accordance with Claim 47 wherein said deterring means comprises an electrical current emitting device that emits an animal-frightening electrical current.

Claim 51. A feed metering device in accordance Claim 47 wherein said deterring means includes a closing means, said closing means being movable to close said entrance opening to said feed unit.

Claim 52. A feed metering device in accordance with Claim 47 wherein said feed unit comprises a movable closing means which closes said entrance opening to said feed unit.

Claim 53. A feed metering device in accordance with Claim 31 wherein said feed unit comprises a wall portion for catching feed in said feed unit.

Claim 54. A feed metering device in accordance with Claim 31 which comprises an animal identification device for identifying

animals that proceed to the feed metering device, closing means for said feed unit, a motor driving said closing means, said motor being controlled on the basis of data from said animal identification device.

Claim 55. A feed metering device in accordance with Claim 54 comprising a roll which contacts said closing means, said motor driving said roll.

Claim 56. A feed metering device in accordance with Claim 55 wherein said animal identification device includes said motor and said roll.

Claim 57. A feed metering device in accordance with Claim 56 wherein said feed unit bears on said animal identification device by means of said roll.

Claim 58. A feed metering device in accordance with Claim 31 which comprises closing means for closing said entrance opening to said feed unit and a roll for moving said closing means, said roll also measuring torque applied to said feed unit due to the weight of the food in said feed unit.

Claim 59. A feed metering device in accordance with Claim 31 which further comprises an animal identification device which is disposed in a vicinity below said entrance opening.

Claim 60. A feed metering device in accordance with Claim 31 comprising deterring means for deterring an animal from taking feed from said feed unit, said deterring device being at least partly integrated in said weighing means.

Claim 61. A feed metering device for providing feed in



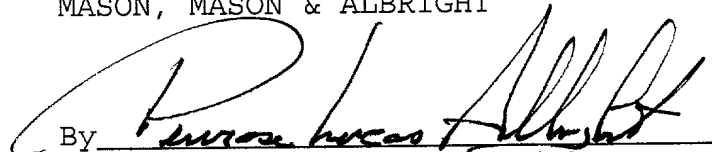
the Application.

As amended, the Application has thirty-two (32) claims, three (3) of which are independent claims. Accordingly, a Filing Fee of Four Hundred and Sixty-three dollars (\$463.00) appears to be required and our check to cover same is submitted herewith. If this is in error, the Commissioner of Patents and Trademarks is authorized to debit or credit our Account No. 13-2000, as appropriate.

Respectfully submitted,

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By



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### ABSTRACT OF THE DISCLOSURE

A feed metering device for distributing fodder or drink or both as feed to animals in metered portions. The metering device is provided with a feed unit for containing the feed. An entrance door provides access to the feed unit. A feed supplying device supplies a predetermined amount of feed to the feed unit for the animal which is to be fed at the feed unit as determined by an animal identification device which is disposed at the feed unit and detects an identifying transponder on the relevant animal. The feed unit and therefore the feed therein is measured by its angular displacement relative to the device otherwise. Specifically, rolls are provided to measure the amount of pivoting or rotation relative to the device otherwise. The device also includes deterrence elements such as a loudspeaker or a light or an electrical current in lieu of or in additions to the entrance door to deter animals from attempting to consume feed at the feed unit when it is undesirable that the particular animal be permitted to consume feed at the feed unit.